> According to the teachings of the present invention, there is provided a method and system for managing I/O transmissions in a Fibre Channel network that maintains unique reserve command relationships between target devices and initiators as well as target device and initiator states across address changes in the Fibre Channel network to eliminate or at least substantially reduce disadvantages and limitations associated with known such systems and methods, including the problems of limited network performance, loss of data in certain applications, and general application failures (column 4, lines 35-44, emphasis added).

However, Applicant reads this passage as contradicting the Examiner's position rather than supporting it. The passage indicates that Reynolds would not identify "the target device as a failed device", as recited in claim 1, for at least the following reasons. For one thing, as indicated in the emphasized portions of the quoted passage, Reynolds's invention "maintains ... relationships between ... target device and initiator states across address changes". For another, Reynolds teaches that Reynolds's target device continues operating after the address changes:

> The present invention, therefore, maintains any unique reserve command relationships that existed prior to the break in communication between one or more initiators and one or more target devices. Instead of eliminating any previously transmitted I/Os and any existing unique reserve command relationships, the method of the present invention changes the recorded network addresses for the initiators and the target devices, maintains the previously-existing unique reserve command relationships and continues with I/O transmission. (Column 7, lines 18-27, emphasis added)

Applicant interprets Reynolds's use of the words "maintains" and "continues" in relation to Reynolds's target device as indicating that Reynolds's target device is in continuous operation. Therefore, Reynolds does not teach "identifying the target device as a failed device", as recited in claim 1.

Claim 1 also recites "determining if the target device has an active neighbor if the attempt to communicate with the target device fails". The Examiner points to Carusone's abstract, which mentions "nearest neighbor" information gathered when "each unit of a pair of link coupled units, initially or on reconnection, interrogates a link adapter at the other end of the link for an identifier that identifies both the remote unit and the remote link adapter" (emphasis added). However, Carusone's abstract does not disclose or suggest "an attempt to communicate" which "fails", as claim 1 recites. The Examiner also cites a second passage from Carusone:

> Whenever a switch, CPU, or CU attached to the CPU/CU interface network is connected to a neighboring unit, it exchanges LAIDs with the unit on the other end of the link (sometimes referred to hereinafter as its "nearest neighbor" unit). The LAID of the nearest neighbor is then stored locally by each unit so that it will be available for transmission as part of an error report, if and when a failure occurs. Each time the possibility exists that a different unit has been connected

> to the system, the aforesaid identifiers are exchanged again to insure that the value saved is the identifier of the current attached link adapter.
>
> Furthermore, according to the invention, whenever a failure occurs, failure reports are sent by each unit that observes the failure, to a central location. Each failure report includes the LAID of the link adapter that detected the failure as well as the LAID of the link adapter at the other end of the link (the previously stored LAID of the nearest neighbor). When the reports are received in the central location, the reports from the two ends of a single link can be readily identified since they each contain the same two LAIDs.
>
> In situations where the failure has been propagated through a switch, two links become involved. In this case the two pairs of failure reports, one pair for each link, are known to be from the same failure since they have the unit identifier of the switch in common and occur in close time proximity to each other. The method and apparatus contemplated by the invention combine such error reports to easily isolate the failure in these cases. (Column 5, lines 8-37, emphasis added)

The Examiner appears to believe that this passage teaches an "attempt to communicate with the target device" that "fails", as recited in claim 1, but Applicant can find no evidence that it does. It is true, as the added emphasis in the excerpted passage highlights, that Carusone teaches preparations for "if and when a failure occurs" and "whenever a failure occurs". Carusone also teaches situations following the recognition of a failure: a unit "observes the failure"; a failure report can specify information about a link adapter that "detected the failure". But the passage is silent on how these observations and detections are accomplished. Indeed, when Carusone characterizes the failure reports themselves and the fault symptoms that the reports contain, Carusone discloses the following:

> As for fault symptoms, depending on the nature of the link-connected system (for example, fiber optic, electrical, etc.), indications such as loss of light (LOL), a signalled nonoperational sequence (NOS) indicating that the link is nonoperational due to a failure, etc., are contemplated as being transmitted as part of an error report. (Column 11, lines13-19)

In particular, there is no "attempt to communicate" which "fails", as claim 1 recites.

The Examiner cites a third passage from Carusone:

> According to one embodiment of the invention, the LAID pair associated with each link forms the "nearest neighbor" information that can be used to advantage in generating error reports without requiring a systemwide configuration table to be created or maintained.
>
> Each LAID number shown in FIGS. 2 and 3 can be seen to be the combination of a given unit ID plus a unique number (the interface ID, or port number, as noted above) indicating a specific adapter on the given unit. (Column 8, lines 61-68 were cited by the Examiner. The excerpted passage continues to the end of the sentence at column 9, line 2.)

Again, the Examiner appears to believe that this passage teaches an "attempt to communicate with the target device" that "fails", as recited in claim 1. Here, too, though, Applicant can find no evidence that Carusone includes this teaching. In fact, in a quick review of the entire

Carusone patent, Applicant could not find any indication that Carusone discloses or suggests "determining if the target device has an active neighbor if the attempt to communicate with the target device fails", as recited in claim 1 (emphasis added).

Even if one assumes, for purposes of argument only, that the Examiner's account of how the prior art teaches individual events of claim 1 were correct, claim 1 still requires a sequence on those events which the Examiner has not addressed. Specifically, Claim 1 recites "if the attempt to communicate with the target device fails" as a basis for "determining if the target device has an active neighbor". Subsequently, claim 1 recites "if the target device has an active neighbor" as a basis for "identifying the target device as a failed device". The references do not teach or suggest this sequence.

After admitting that Carusone does not explicitly teach a "target device" as recited in claim 1, the Examiner says that Carusone also discloses "a central service processor (i.e., target device)". The Examiner appears to believe that, while not explicitly identical to claim 1's "target device", Carusone's central service processor is in some way equivalent to it. This is almost the identical position that the Examiner took in the Office Action mailed on Dec. 6, 2000, and which Applicant has already argued against in Applicant's response to that action. Indeed, Applicant's same arguments still apply:

> ... the central service processor cannot be the "target device". The "target device" is potentially being identified as a failed device. If the central service processor is a failed device, Carusone's system will not work since it is the central location which analyzes data to identify failed devices.

Claim 11 recites "generating a neighbor table for the devices based on information provided from the devices" and:

> if the target device is not active, the method further comprises:
> locating a neighbor of the target device using the neighbor table;
> sending a packet to the neighbor to determine if the neighbor is active; and
> identifying the target device as a failed device if the neighbor is active.

The Examiner has not indicated how the references disclose or suggest these features of claim 11. More importantly, we could not these features either taught or suggested by any of the cited references.

The other independent claims include features that are substantially the same as those features that are recited in claim 1 and that we have argued are not taught or suggested by the

prior art. More specifically, claims 12, 21, and 30 each recite code which when executed implements substantially the same steps as those recited in claim 1. Thus, for the same reasons we presented in connection with claim 1, we submit that these other independent claims are also patentable over the prior art of record.

For the reasons stated above, we submit that all of the claims are allowable and ask the Examiner to allow them to issue. Please apply any other charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

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